

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Previously Presented) An image processing apparatus for coding image data of a base band or image data, which is coded up to a midstep, comprising:
acquisition means for acquiring previously-executed image coding information ;
and
control means for controlling the image data of the base band or the image data coded up to the midstep,
wherein, when a coding picture type is a predetermined picture type, the control means determines whether the previously-executed image coding information is to be used to the coding processing based on the previously-executed image coding information and on a condition as to the coding processing executed to the image data by the image processing apparatus, and
wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

2. (Canceled).

3. (Previously Presented) An image processing apparatus according to claim 1,

wherein the control means determines whether the previously-executed image coding information is to be used based on whether the amount of generated code in the decoding described in the previously-executed image coding information is equal to or less than a predetermined value.

4. (Previously Presented) An image processing apparatus according to claim 1, further comprising:

output means that is supplied with first coding data supplied by another image processing apparatus that decodes the image data and that is supplied with second coding data created by the coding processing and that outputs the first coding data or the second coding data,

wherein the control means further controls the output means and causes the output means to output the first coding data when the phase of the macro block in the past coding described in the previously-executed image coding information agrees with the phase of the macro block of the coding processing, the amount of the generated code in the decoding described in the previously-executed image coding information is equal to or less than the predetermined value, and the position and the magnitude of an image frame in the past coding described in the previously-executed image coding information agree with those of the coding processing.

5. (Previously Presented) An image processing method of an image processing apparatus for coding image data of a base band or image data, which is coded up to a midstep comprising:

acquiring previously-executed image coding information; and

determining, when a coding picture type is a predetermined picture type, whether the previously-executed image coding information is to be used to the coding processing based on the previously-executed image coding information and on a condition as to the coding processing executed to the image data by the image processing apparatus,

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

6. (Previously Presented) A recording medium storing a program that, when executed by a computer, causes the computer to execute coding processing of image data of a base band or image data, which is coded up to a midstep,

wherein the program comprises:

a first determination step for determining whether a coding picture type is a predetermined picture type;

a comparison step for comparing, when it is determined by the processing at the first determination step that the picture type is the predetermined picture type, previously-executed image coding information with a condition as to the coding processing; and

a second determination step for determining whether the previously-executed image coding information is to be used to the coding processing based on a result of comparison of the processing executed at the comparison step, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

7. (Canceled)

8. (Previously Presented) An image processing apparatus for transforming image data, comprising:

decoding means for decoding the image data perfectly or imperfectly; and

coding means for coding the image data of a base band or the image data, which is coded up to a midstep,

wherein the coding means comprises:

acquisition means for acquiring previously-executed image coding information ;
and

control means for controlling the coding processing of the image data of the base band or the image data coded up to the midstep,

wherein the control means determines, when a coding picture type is a predetermined picture type, whether the previously-executed image coding information is to be

used to the coding processing based on previously-executed image coding the information acquired by the acquisition means and on a condition as to the coding processing, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

9. (Previously Presented) An image processing method of an image processing apparatus for transforming image data, comprising:

a decoding step for decoding the image data; and

a coding step for coding the image data of a base band or the image data, which is coded up to a midstep,

wherein the processing at the coding step comprises:

a first determination step for determining whether a coding picture type is a predetermined picture type;

a comparison step for comparing, when it is determined by the processing at the first determination step that the picture type is the predetermined picture type, previously-executed image coding information with a condition as to the coding processing; and

a second determination step for determining whether the previously-executed image coding information is to be used to the coding processing based on a result of comparison of the processing executed at the comparison step, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

10. (Previously Presented) A recording medium storing a program that, when executed by a computer, causes the computer to execute processing for transforming image data,

wherein the program comprises:

a decoding step for decoding the image data; and

a coding step for coding the image data of a base band or the image data, which is coded up to a midstep,

wherein the processing at the coding step comprises:

a first determination step for determining whether a coding picture type is a predetermined picture type;

a comparison step for comparing, when it is determined by the processing at the first determination step that the picture type is the predetermined picture type, acquired previously-executed image coding information with a condition as to the coding processing; and

a second determination step for determining whether the previously-executed image coding information is to be used to the coding processing based on a result of comparison of the processing executed at the comparison step, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

11. (Canceled)

12. (Previously Presented) An image recording apparatus for recording image data, comprising:

decoding means for decoding the image data;

coding means for coding the image data of a base band or the image data, which is coded up to a midstep; and

recording control means for controlling the record of the image data coded by the coding means,

wherein the coding means comprises:

acquisition means for acquiring previously-executed image coding information ;
and

control means for controlling the coding processing of the image data of the base band or the image data coded up to the midstep, and

wherein, when a coding picture type is a predetermined picture type, the control means determines whether the previously-executed image coding information is to be used to the coding processing based on the previously-executed image coding information acquired by the acquisition means and on a condition as to the coding processing, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

13. (Previously Presented) An information recording apparatus according to claim 12,

wherein the recording control means controls recording of the image data coded by the coding means and previously-executed image coding information at different positions.

14. (Previously Presented) An image recording method of an image recording apparatus for recording image data, comprising:

a decoding step implemented by decoding means for decoding the image data;

a coding step implemented by coding step for coding the image data of a base band or the image data, which is coded up to a midstep; and

a recording control step implemented by controlling means for controlling the recording of the image data coded by the processing at the coding step,

wherein the processing at the coding step comprises:

a first determination step for determining whether a coding picture type is a predetermined picture type;

a comparison step for comparing, when it is determined by the processing at the first determination step that the picture type is the predetermined picture type, acquired previously-executed image coding information with a condition as to the coding processing; and

a second determination step for determining whether the previously-executed image coding information is to be used to the coding processing based on a result of comparison of the processing executed at the comparison step, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

15. (Previously Presented) An image reproducing apparatus for reproducing image data, comprising:

reproduction means for reproducing the image data recorded to a predetermined recording medium;

decoding means for decoding the image data reproduced by the reproduction means; and

coding means for coding the image data of a base band or the image data, which is coded up to a midstep,

wherein the coding means comprises:

acquisition means for acquiring previously-executed image coding information ;
and

control means for controlling the coding processing of the image data of the base band or the image data coded up to the midstep, and

wherein the control means determines, when a coding picture type is a predetermined picture type, whether the previously-executed image coding information is to be

used to the coding processing based on the previously-executed image coding information acquired by the acquisition means and on a condition as to the coding processing, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

16. (Previously Presented) An information reproducing method of an information reproducing apparatus for reproducing image data, comprising:

a reproduction step implemented by reproduction means for reproducing the image data recorded to a predetermined recording medium;

a decoding step implemented by decoding means for decoding the image data reproduced by the reproduction means; and

a coding step implemented by coding means for coding the image data of a base band or the image data, which is coded up to a midstep,

wherein the processing at the coding step comprises:

a first determination step for determining whether a coding picture type is a predetermined picture type;

a comparison step for comparing, when it is determined by the processing at the first determination step that the picture type is the predetermined picture type, acquired previously-executed image coding information with a condition as to the coding processing; and

a second determination step for determining whether the previously-executed image coding information is to be used to the coding processing based on a result of comparison of the processing executed at the comparison step, and

wherein whether the acquired previously-executed image coding information is used is determined based on at least whether the image data is an I-type and whether a coding phase of a past macro block agrees with that of a coding phase of a current macro block.

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